

(FILE 'HOME' ENTERED AT 11:35:12 ON 09 FEB 2003)

FILE 'BIOSIS, MEDLINE, INPADOC, CAPLUS' ENTERED AT 11:35:29 ON 09 FEB 2003

L1 6 (COLLAGEN II) AND (D4 PERIOD)

L2 2 DUPLICATE REMOVE L1 (4 DUPLICATES REMOVED)

FILE 'STNGUIDE' ENTERED AT 11:36:30 ON 09 FEB 2003

FILE 'BIOSIS, MEDLINE, INPADOC, CAPLUS' ENTERED AT 11:37:23 ON 09 FEB 2003

L3 0 (COLLAGE II) AND (ACTIVE SITE)

L4 0 (COLLAGEN II) AND (ACTIVE SITE)

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L2 ANSWER 2 OF 2 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.DUPLICATE 2
 AN 2001:402997 BIOSIS
 DN PREV200100402997
 TI Mapping critical sites in **collagen II** for rational
 design of gene-engineered proteins for cell-supporting materials.
 AU Fertala, Andrzej (1); Han, Wendy B.; Ko, Frank K.
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 SO Journal of Biomedical Materials Research, (October, 2001) Vol. 57, No. 1,
 pp. 48-58. print.
 ISSN: 0021-9304.
 DT Article
 LA English
 SL English
 AB **Collagen II** is the most abundant protein of cartilage
 and forms a network of fibrils extended by proteoglycans that enables
 cartilage to resist pressure. The surface of the collagen fibril serves as
 a platform for the attachment of collagen IX, growth factors, and cells.
 In this study we examined the mechanism of the interaction of chondrocytes
 with recombinant versions of procollagen II, in which one of the four
 blocks of 234 amino acids that define repeating D periods of the collagen
 triple helix has been deleted. Analysis of the attachment of chondrocytes
 to **collagen II** variants with deleted D periods
 indicated that the **collagen II** monomer contains
 randomly distributed sites critical for cell binding. However, as was
 shown by spreading and migration assays, the **D4 period**
 , which is between residues 703 to 936, contains amino acids critical for
 cell motility. We also showed that binding, spreading, and migration of
 chondrocytes through three-dimensional nanofibrillar collagenous matrices
 are controlled by an interaction of the collagen triple helix with beta1
 integrins. The results of this study provide a basis for the rational
 design of a scaffold containing genetically engineered collagen with a
 high density of specific sites of interaction.

(FILE 'HOME' ENTERED AT 15:31:10 ON 25 JAN 2003)

FILE 'BIOSIS, MEDLINE, INPADOC, CAPLUS' ENTERED AT 15:31:38 ON 25 JAN 2003

L1	44 TISSUE AND SCAFFOLD AND "TYPE II COLLAGEN"
L2	31 DUPLICATE REMOVE L1 (13 DUPLICATES REMOVED)
L3	0 (POLYMER(5A)SCAFFOLD) AND IMPREGNAT? AND COLLAGEN
L4	67 (POLYMER(5A)SCAFFOLD) AND COLLAGEN
L5	39 DUPLICATE REMOVE L4 (28 DUPLICATES REMOVED)

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